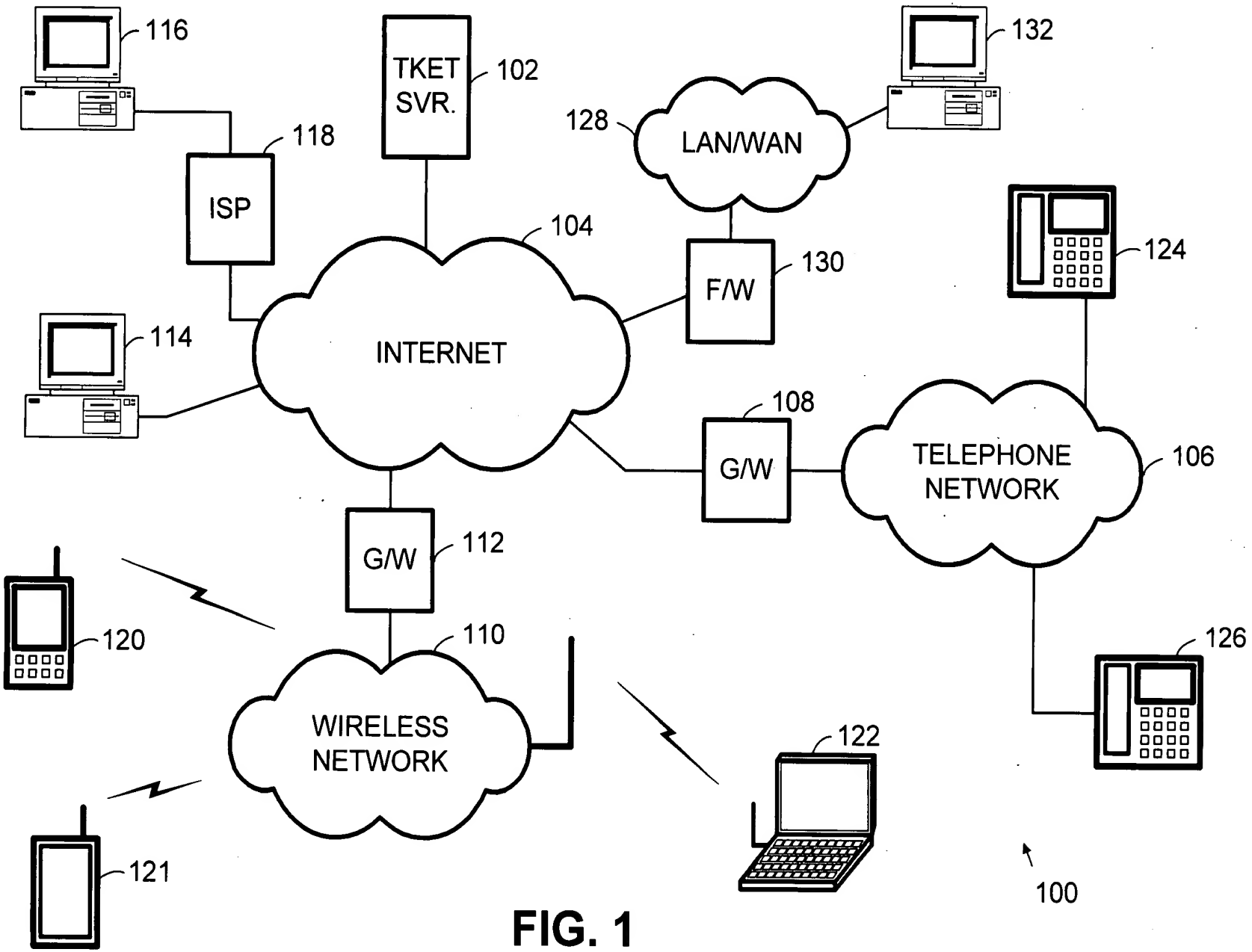
116
TKET SVR.
102
132
118
128
LAN/WAN
ISP
104
F/W
130
124
114
INTERNET
108
G/W
TELEPHONE NETWORK
106
G/W
112
120
110
126
WIRELESS NETWORK
122
121
100

FIG. 1

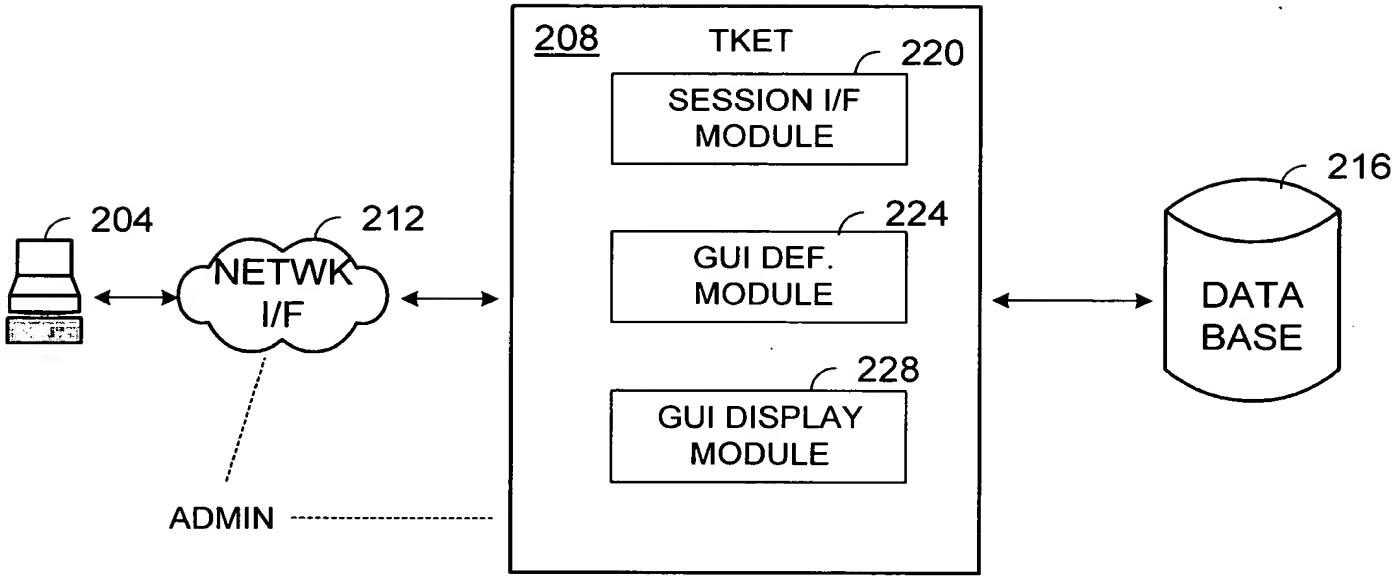
208
TKET
220
SESSION I/F MODULE
224
GUI DEF. MODULE
228
GUI DISPLAY MODULE
216
DATA BASE
204
212
NETWK I/F
ADMIN

FIG. 2

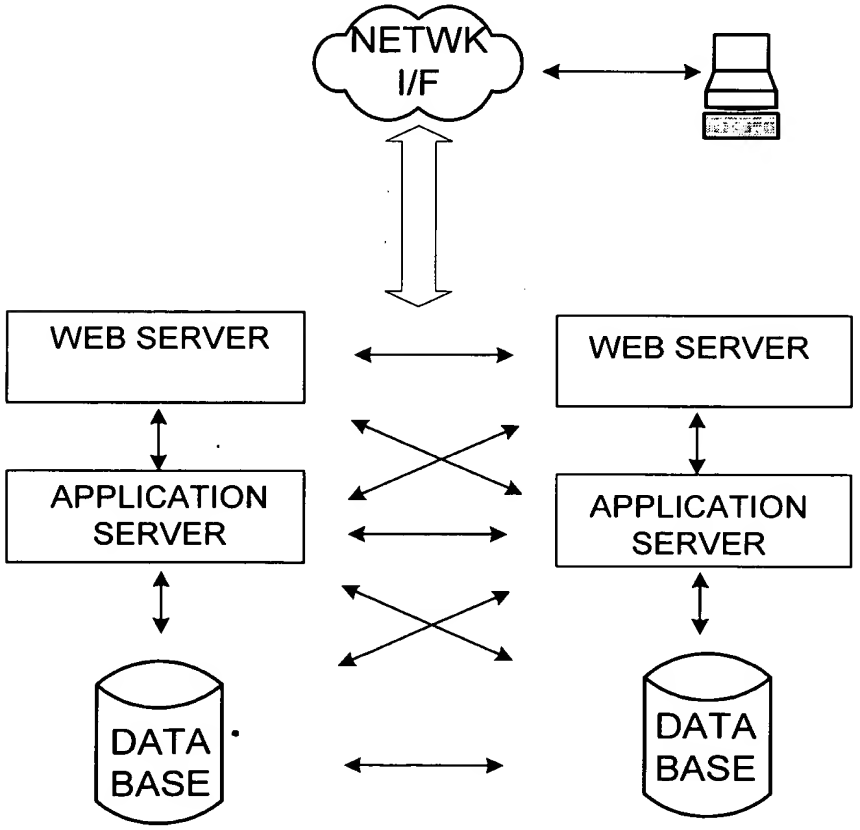
NETWK I/F
WEB SERVER
WEB SERVER
APPLICATION SERVER
APPLICATION SERVER
DATA BASE
DATA BASE

FIG. 3

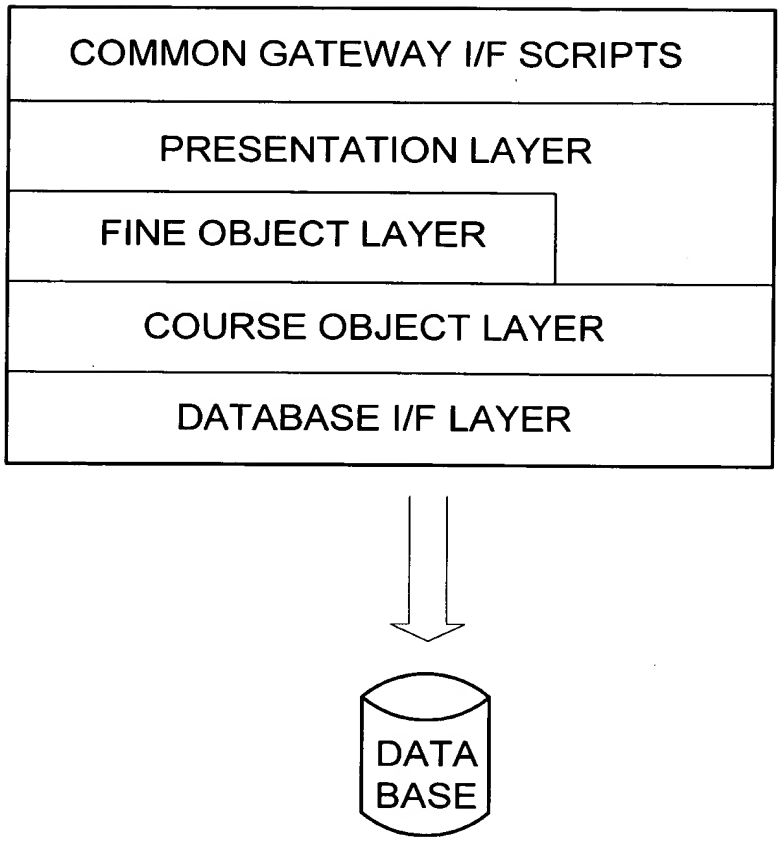
COMMON GATEWAY I/F SCRIPTS
PRESENTATION LAYER
FINE OBJECT LAYER
COURSE OBJECT LAYER
DATABASE I/F LAYER
DATA BASE

FIG. 4

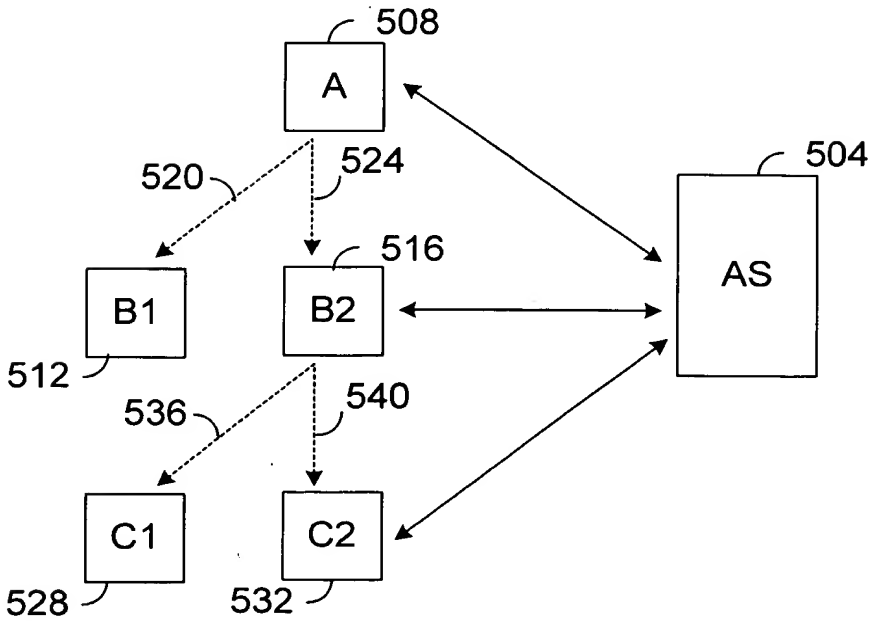
508
A
520
524
504
AS
516
B1
B2
512
536
540
C1
C2
528
532

FIG. 5

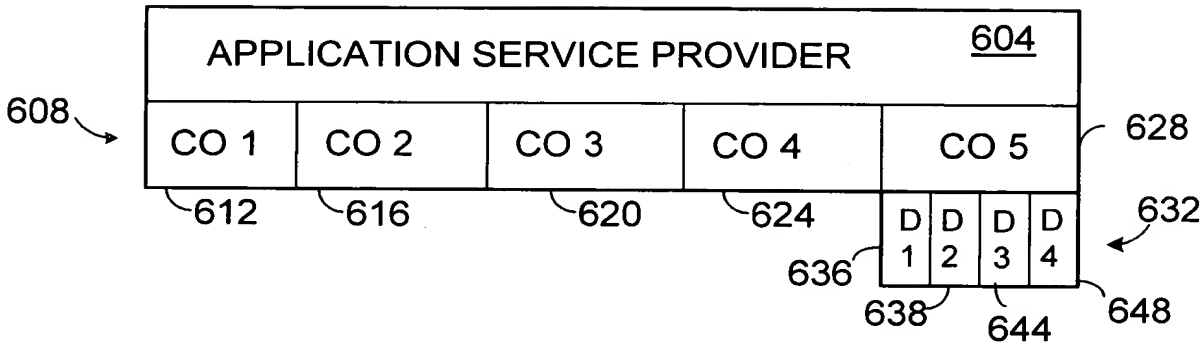
APPLICATION SERVICE PROVIDER
604
608
CO 1
CO 2
CO 3
CO 4
CO 5
628
612
616
620
624
D 1
D 2
D 3
D 4
632
636
638
644
648

FIG. 6

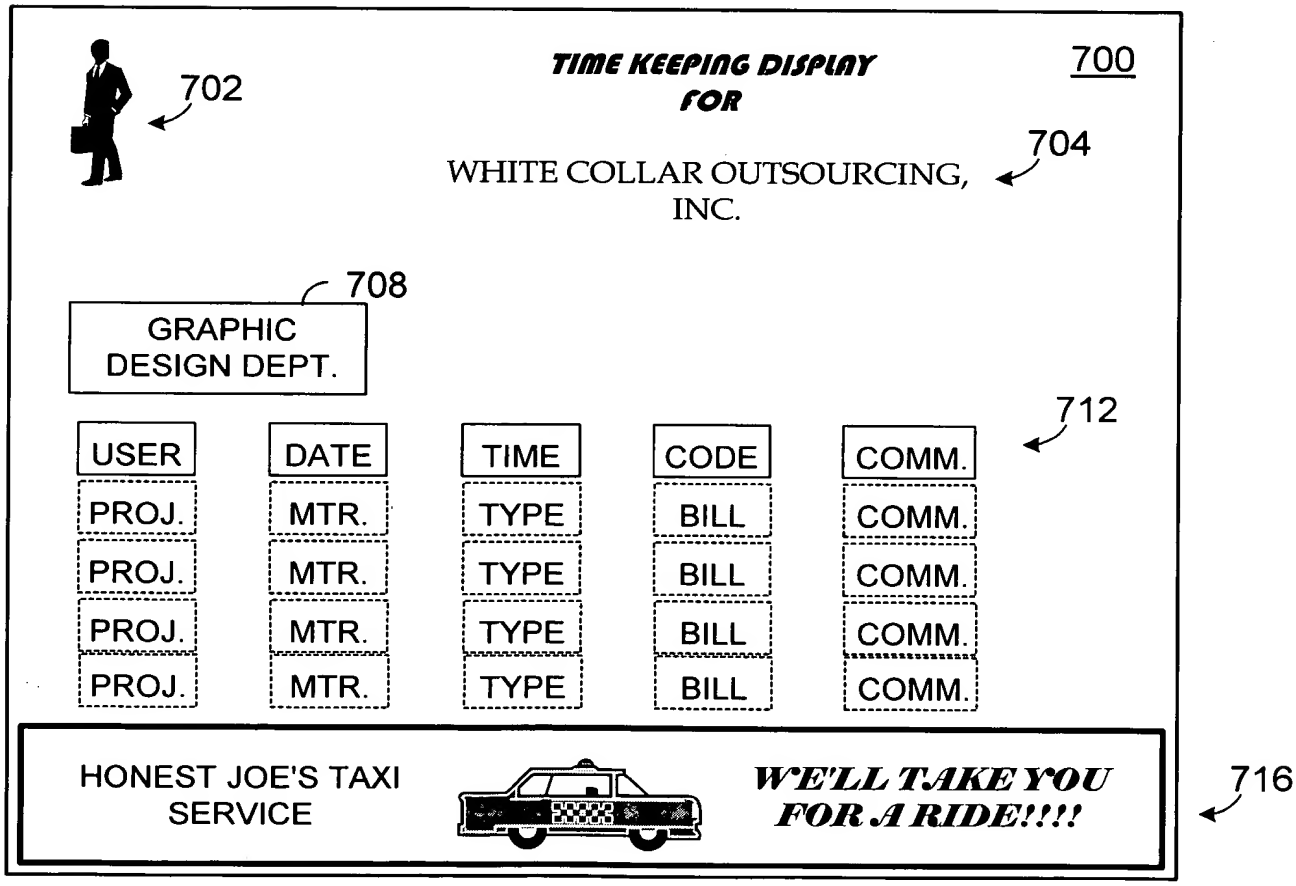
TIME KEEPING DISPLAY FOR
700
702
704
WHITE COLLAR OUTSOURCING, INC.
708
GRAPHIC DESIGN DEPT.
712
USER
DATE
TIME
CODE
COMM.
PROJ.
MTR.
TYPE
BILL
COMM.
HONEST JOE'S TAXI SERVICE
WE'LL TAKE YOU FOR A RIDE!!!!
716

FIG. 7

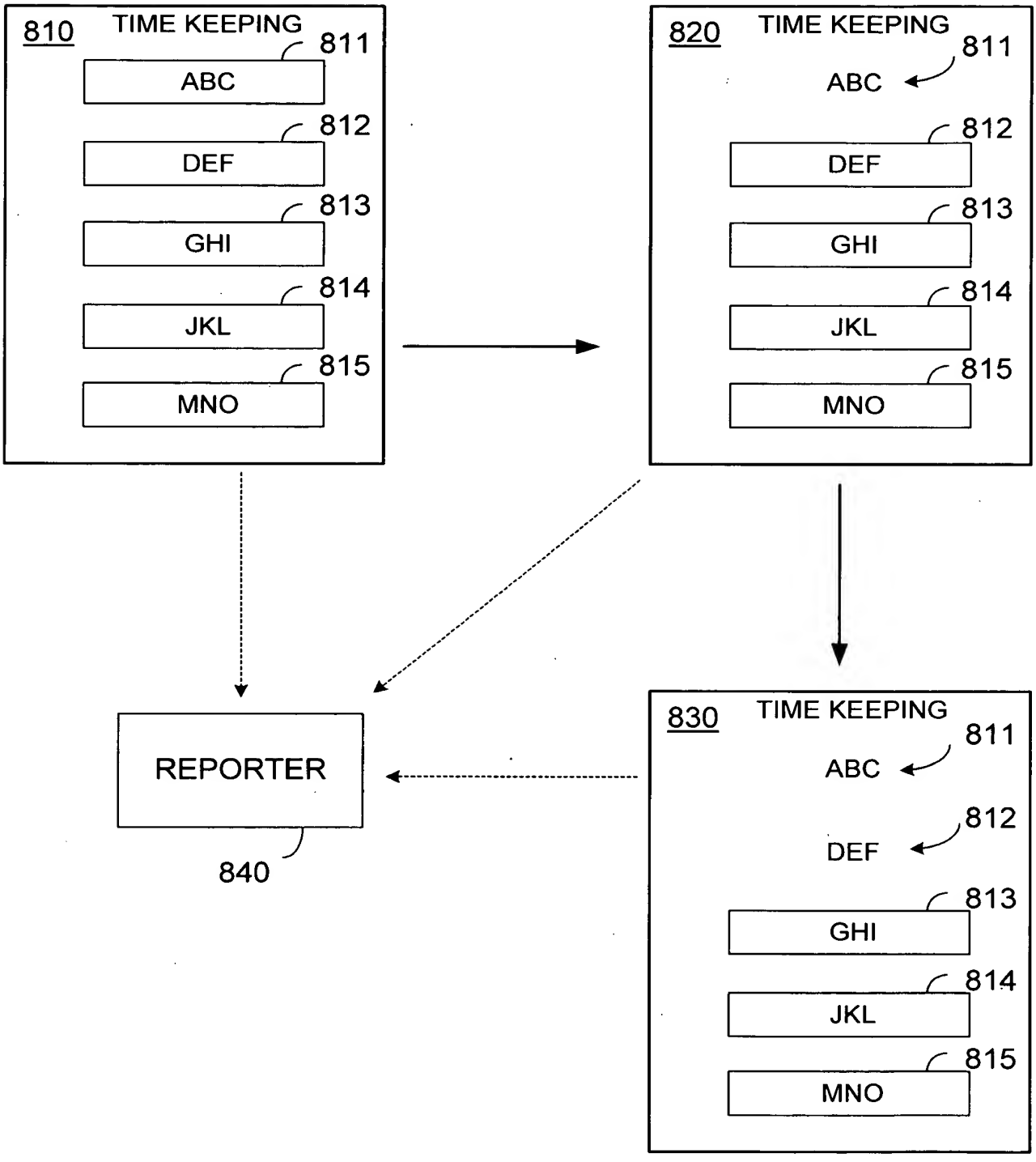
810
TIME KEEPING
811
ABC
812
DEF
813
GHI
814
JKL
815
MNO
820
TIME KEEPING
811
ABC
812
DEF
813
GHI
814
JKL
815
MNO
REPORTER
840
830
TIME KEEPING
811
ABC
812
DEF
813
GHI
814
JKL
815
MNO

FIG. 8

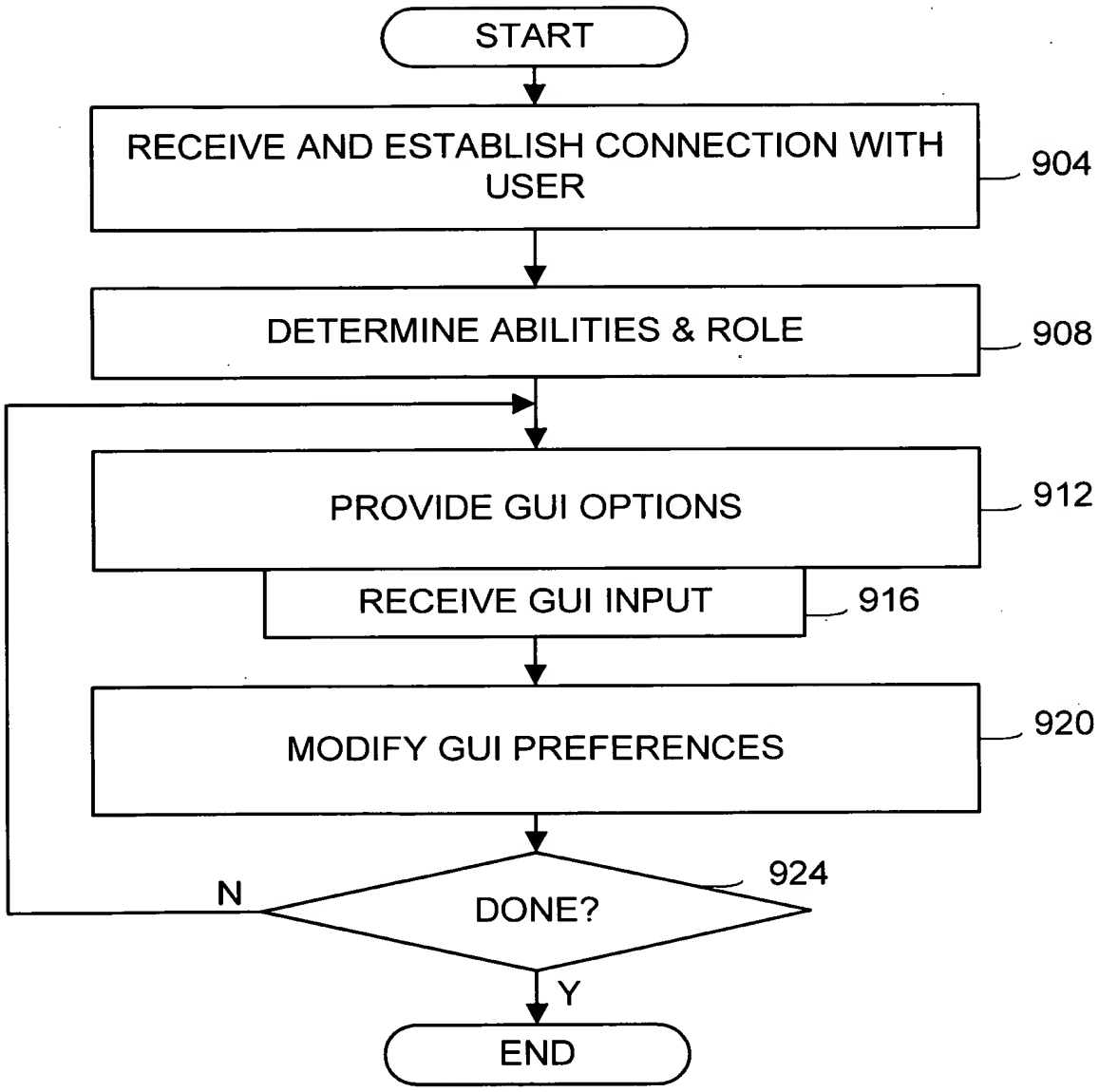
START
RECEIVE AND ESTABLISH CONNECTION WITH USER
904
DETERMINE ABILITIES & ROLE
908
PROVIDE GUI OPTIONS
912
RECEIVE GUI INPUT
916
MODIFY GUI PREFERENCES
920
DONE?
924
N
Y
END

FIG. 9

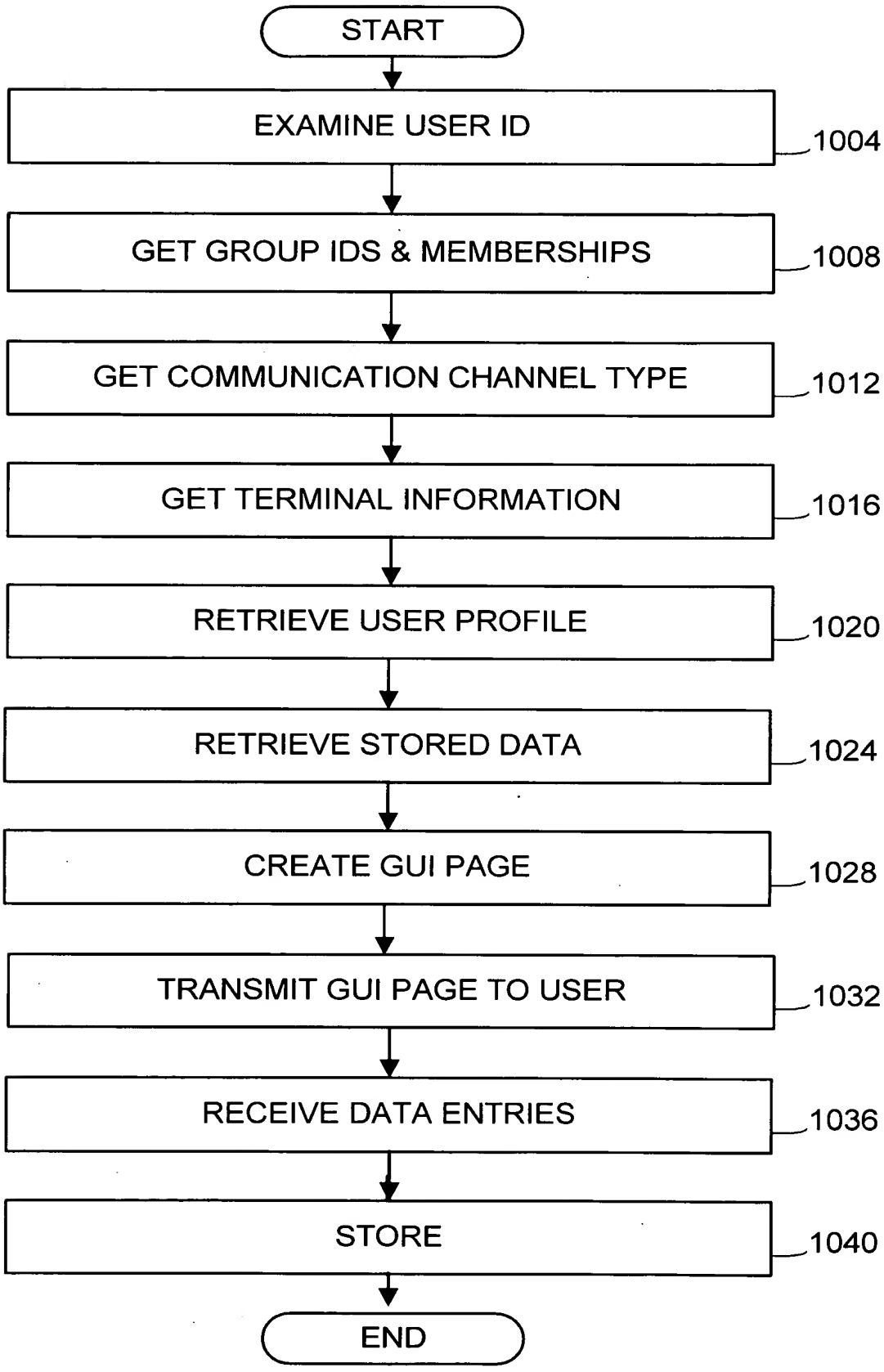
START
EXAMINE USER ID
1004
GET GROUP IDS & MEMBERSHIPS
1008
GET COMMUNICATION CHANNEL TYPE
1012
GET TERMINAL INFORMATION
1016
RETRIEVE USER PROFILE
1020
RETRIEVE STORED DATA
1024
CREATE GUI PAGE
1028
TRANSMIT GUI PAGE TO USER
1032
RECEIVE DATA ENTRIES
1036
STORE
1040
END

FIG. 10

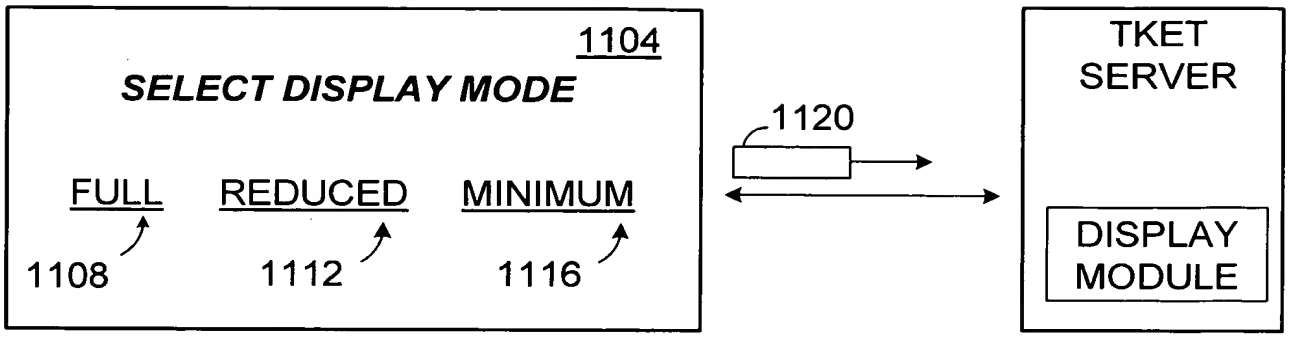


FIG. 11

| DISPLAY MODULE | | | |
|---|---|---|---|
| FULL | REDUCED | MINIMAL | TEXT / IVR |
| DESKTOPS<br>LAPTOPS | MINI LAPTOPS<br>OLDER RELEASE LAPTOPS | PERSONAL DIGITAL ASSISTANT (PDA) | CELLULAR PHONE<br>PAGER |

716

1204 1208 1212 1216

FIG. 12

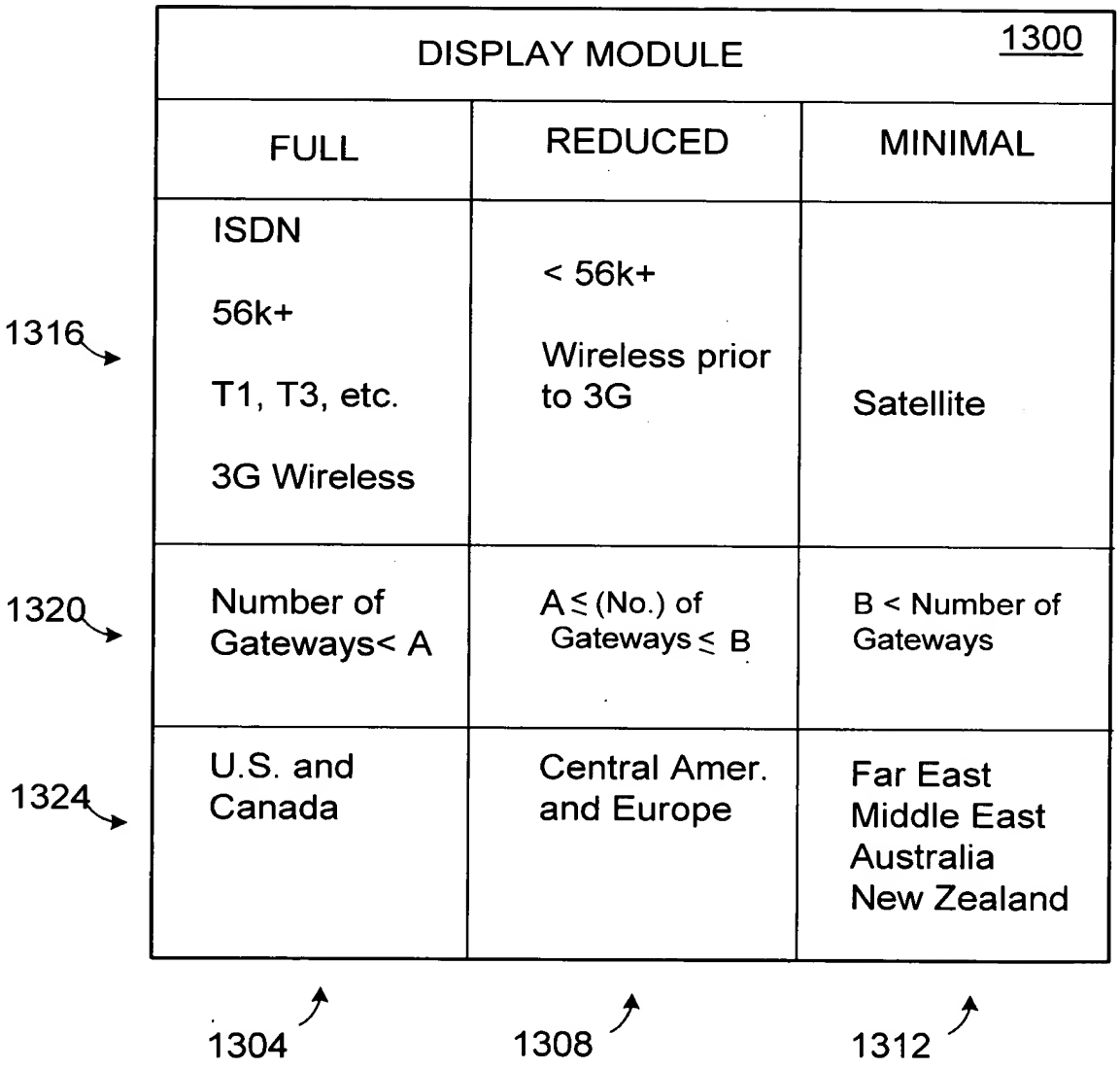
DISPLAY MODULE
1300
FULL
REDUCED
MINIMAL
ISDN
56k+
T1, T3, etc.
3G Wireless
< 56k+
Wireless prior to 3G
Satellite
Number of Gateways< A
A ≤ (No.) of Gateways ≤ B
B < Number of Gateways
U.S. and Canada
Central Amer. and Europe
Far East
Middle East
Australia
New Zealand
1316
1320
1324
1304
1308
1312

FIG. 13

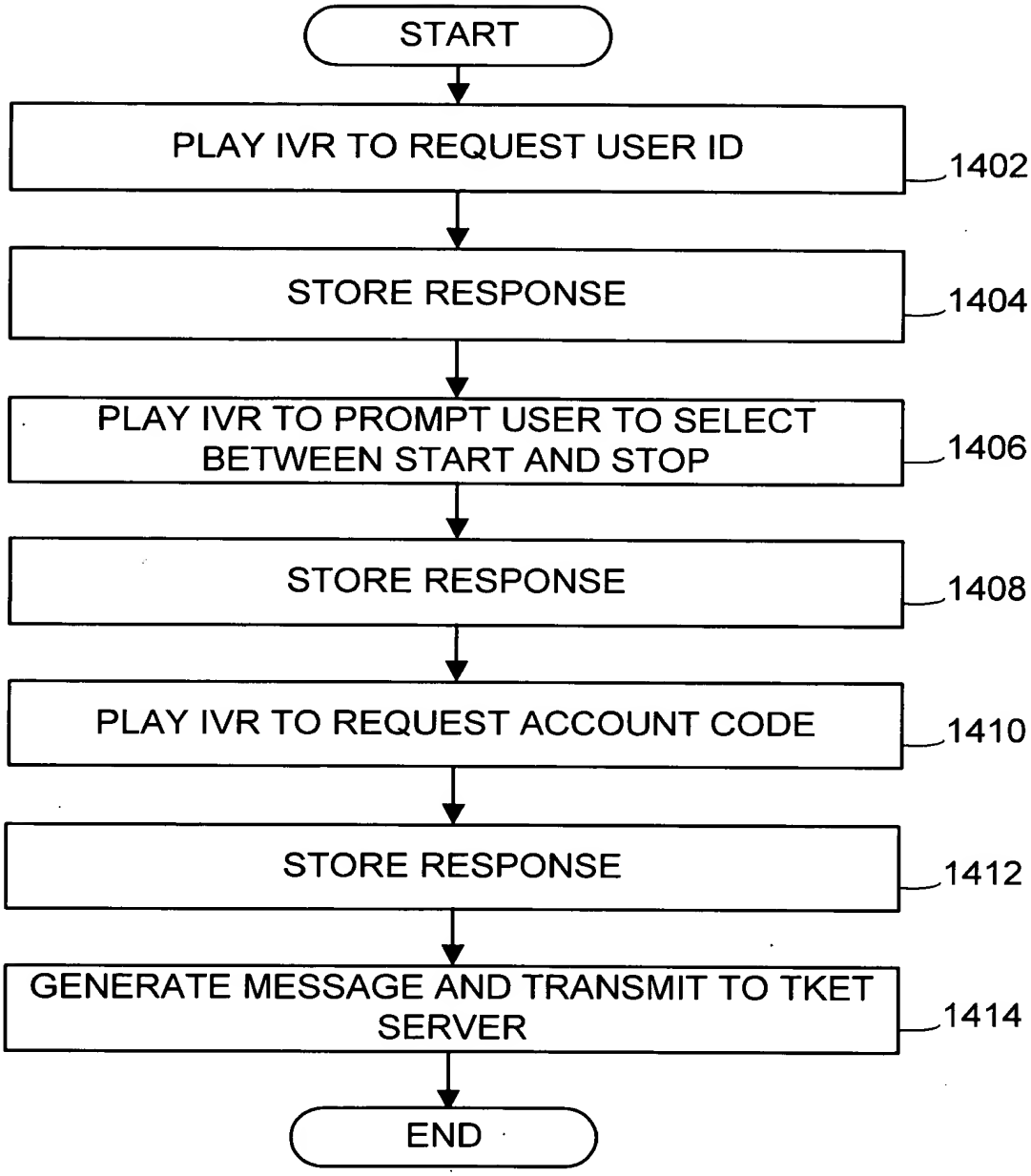
START
PLAY IVR TO REQUEST USER ID
1402
STORE RESPONSE
1404
PLAY IVR TO PROMPT USER TO SELECT BETWEEN START AND STOP
1406
STORE RESPONSE
1408
PLAY IVR TO REQUEST ACCOUNT CODE
1410
STORE RESPONSE
1412
GENERATE MESSAGE AND TRANSMIT TO TKET SERVER
1414
END

FIG. 14

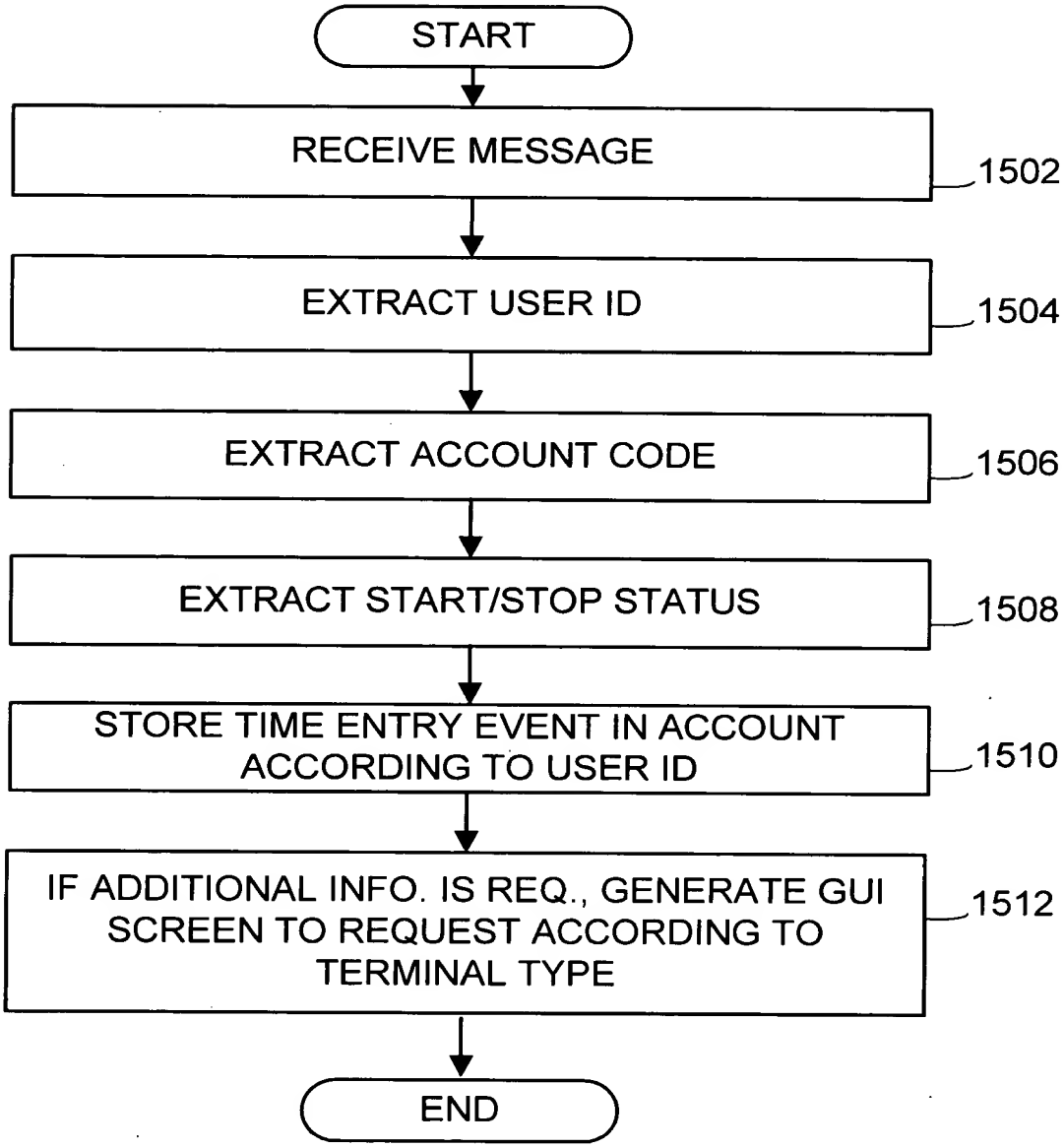
START
RECEIVE MESSAGE
1502
EXTRACT USER ID
1504
EXTRACT ACCOUNT CODE
1506
EXTRACT START/STOP STATUS
1508
STORE TIME ENTRY EVENT IN ACCOUNT ACCORDING TO USER ID
1510
IF ADDITIONAL INFO. IS REQ., GENERATE GUI SCREEN TO REQUEST ACCORDING TO TERMINAL TYPE
1512
END

FIG. 15

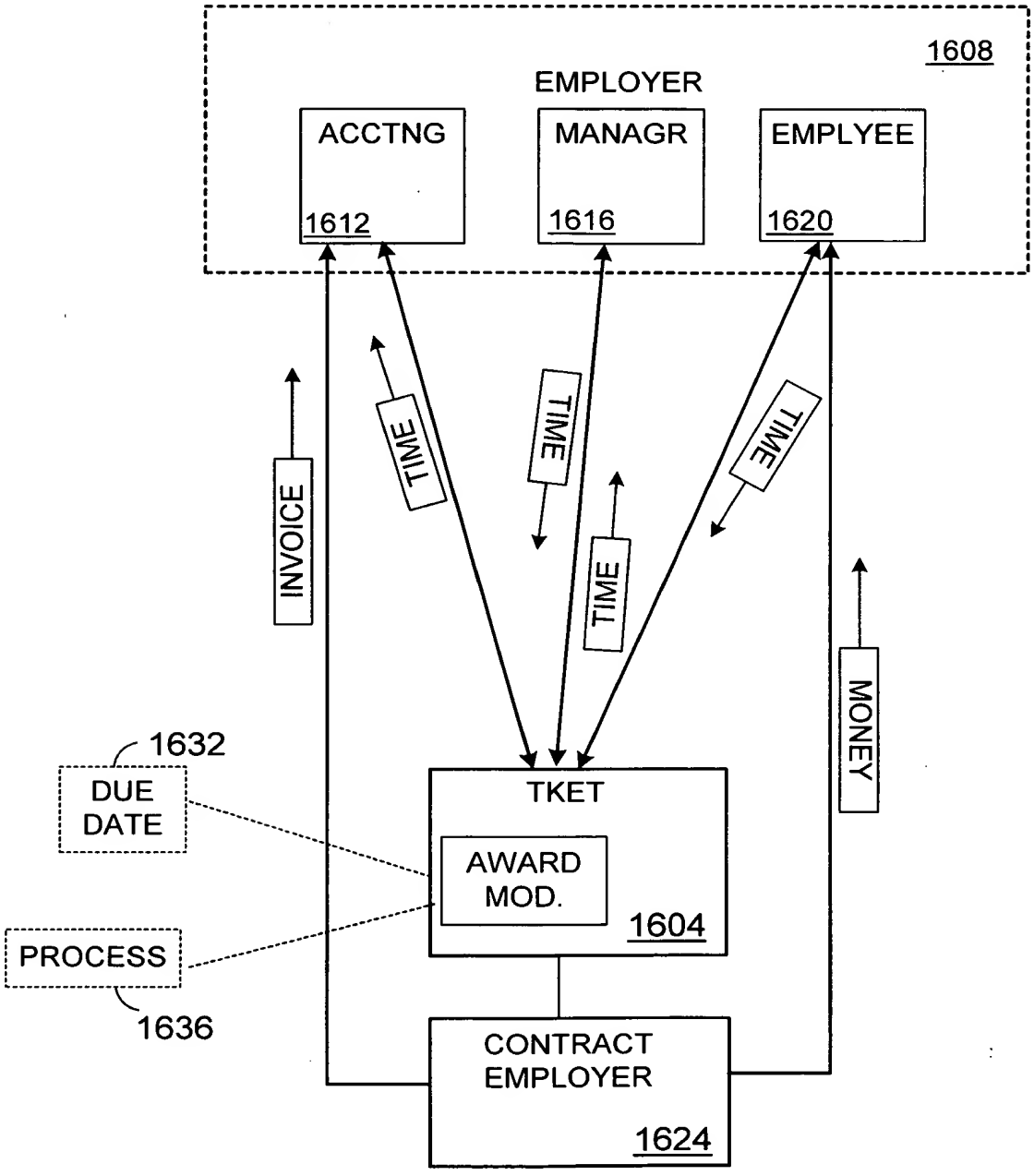
1608
EMPLOYER
ACCTNG
1612
MANAGR
1616
EMPLYEE
1620
INVOICE
TIME
TIME
TIME
TIME
MONEY
1632
DUE DATE
PROCESS
1636
TKET
AWARD MOD.
1604
CONTRACT EMPLOYER
1624

FIG. 16

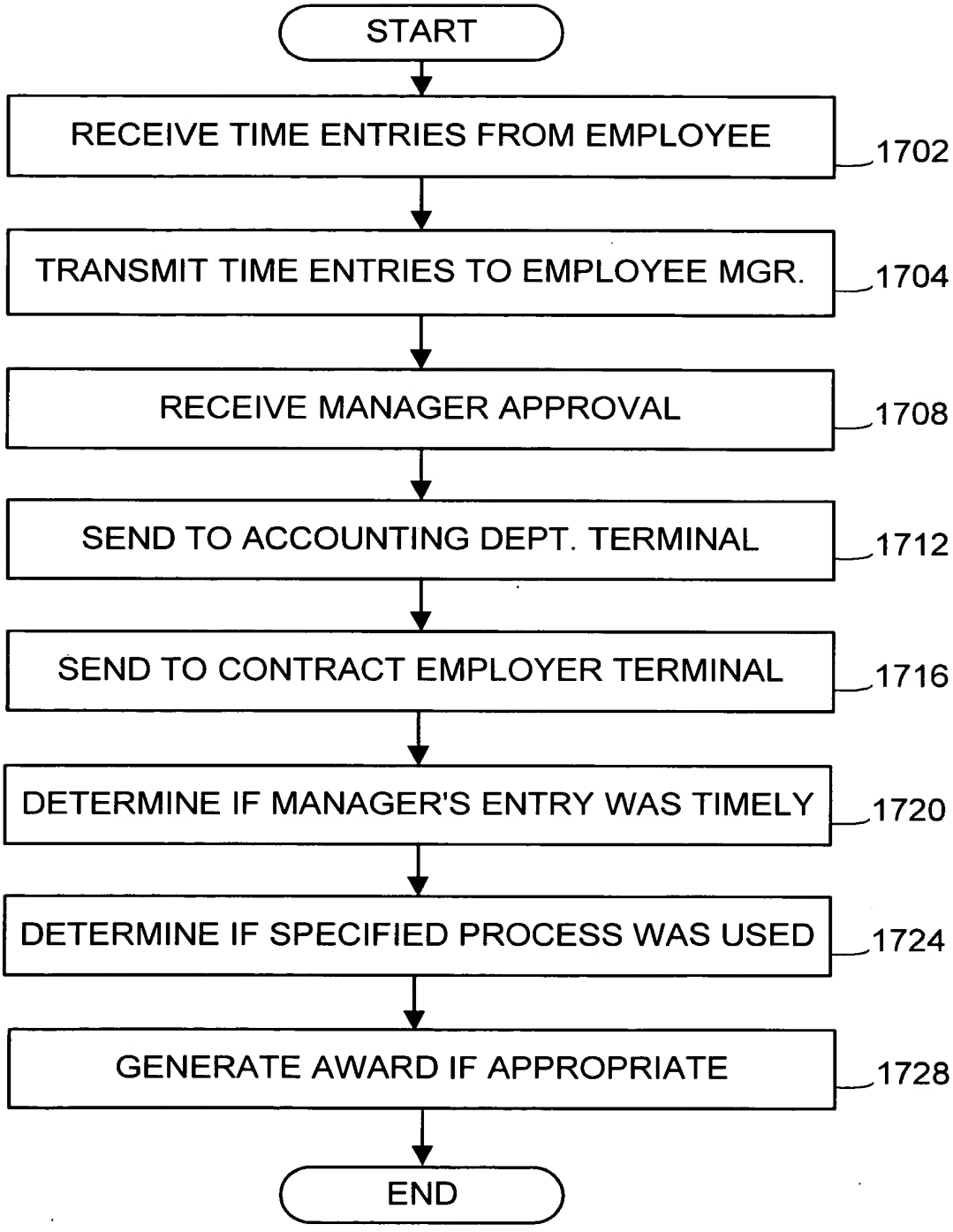
START
RECEIVE TIME ENTRIES FROM EMPLOYEE
1702
TRANSMIT TIME ENTRIES TO EMPLOYEE MGR.
1704
RECEIVE MANAGER APPROVAL
1708
SEND TO ACCOUNTING DEPT. TERMINAL
1712
SEND TO CONTRACT EMPLOYER TERMINAL
1716
DETERMINE IF MANAGER'S ENTRY WAS TIMELY
1720
DETERMINE IF SPECIFIED PROCESS WAS USED
1724
GENERATE AWARD IF APPROPRIATE
1728
END

FIG. 17

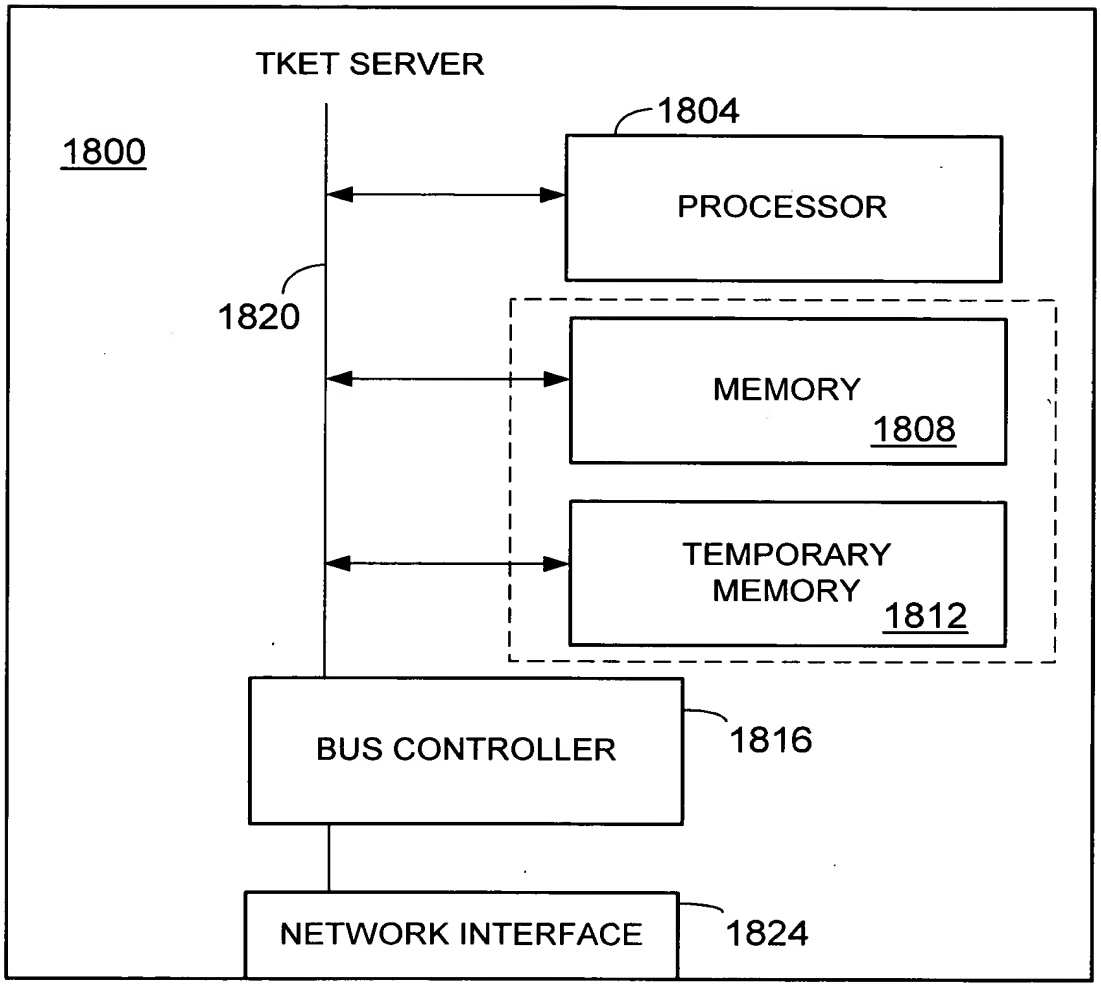
TKET SERVER
1800
1804
PROCESSOR
1820
MEMORY
1808
TEMPORARY
MEMORY
1812
BUS CONTROLLER
1816
NETWORK INTERFACE
1824

FIG. 18